

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Tetsunori FUJISAWA et al.

Serial No. 09/581,402

Filed June 12, 2000

NOVEL METALLOPROTEINASE  
INHIBITORS



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Docket No. 2000-0562A

Group Art Unit

Examiner Not Yet Assigned

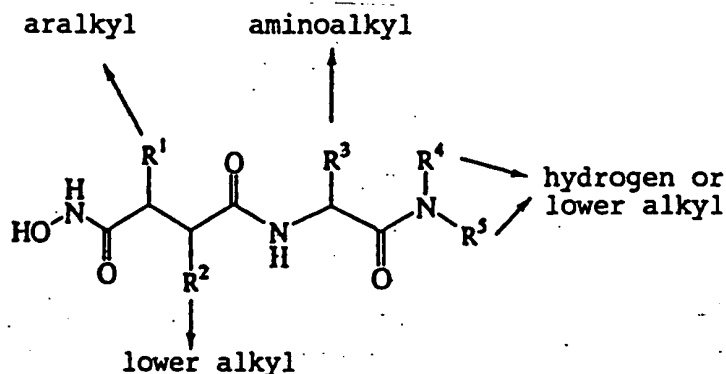
PRELIMINARY REMARKS

Assistant Commissioner for Patents,  
Washington, D.C. 20231

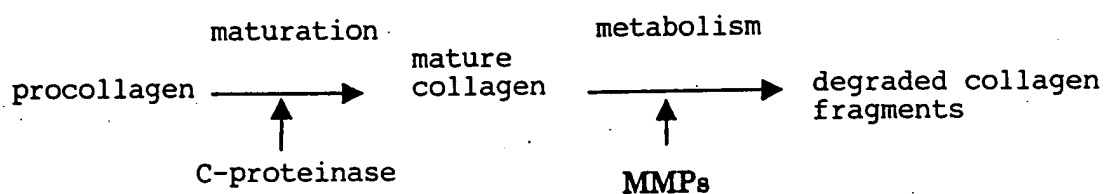
Sir:

To expedite prosecution of the above-identified application, Applicant would like to present the following comments for the Examiner's consideration with regard to the reference WO 97/05865 listed on the PTO-1449 form submitted currently herewith.

From Claim 2 (Inhibitor B) of the WO 97/05865 reference, it appears that the following compound formula may be drawn.



However, Applicants' believe that WO 97/05865 fails to teach nor suggest the compounds of the present invention. (See Appendix 1 enclosed herewith when reviewing the remarks below) First, there is a difference in target enzymes between U.S. Serial No. 09/581,402 and WO97/05865. The compounds disclosed in WO 97/05865 are for inhibiting C-proteinase activity to regulate, modulate and/or inhibit collagen formation (i.e., their actions for decreasing an amount of collagen) while the instant compounds are for inhibiting MMPs to decrease collagen degradation (i.e., their actions for accumulating an amount of collagen). For the Examiner's information, the following biological mechanism is set forth.



Secondly, because of the difference in target enzymes noted above, there is a difference in the target diseases of U.S. Serial No. 09/581,402 and WO 97/05865. The compounds disclosed in WO 97/05865 are candidates for therapeutic agents against arthritic disorders, fibrotic disorders (hepatitis, etc.) while the compounds of the present invention are therapeutic agents against rheumatism, bronchial asthma, inflammatory dermal diseases, tumor metastasis and invasion, corneal ulcer, periodontal diseases, etc.

WO97/05865 (Brenner et al.) disclose compounds of 5 different kinds (i.e., Inhibitors A to E). Among them, Applicants believe that only Inhibitor B is relevant to the compounds of the present invention. In other words, only Inhibitor B in Claim 2 relate to the present invention. Further, only Compound No. 11 is disclosed in the reference as an embodiment of Inhibitor B.

Thus, in view of the chemical structure for Compound No. 11 wherein R<sup>2</sup> is a carboxyalkyl in WO97/05865 and such a carboxyalkyl group is clearly excluded in the compounds (R<sup>4</sup>) of the present invention, Applicants believe that the teachings of WO97/05865 does not affect the novelty and unobviousness of the present invention.

Respectfully submitted,

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